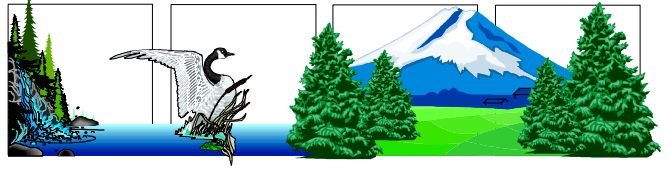


Riparian (Stream Side) Vegetation



Tree Species	Method of Propagation	Habitat Value	Form and Size	Rooting Character	Soils Preference	Planting Distance
Bigleaf Maple <i>Acer macrophyllum</i>	seedlings	forage, nesting, and hiding cover; hydrologic benefits; large woody debris and organic matter input to streams and forest floor	Mature height of 100 feet	shallow roots	Moist-dry soil, sun-part shade	10' apart
Black Cottonwood <i>Populus trichocarpa</i>	cuttings	Same as above Fast grower; binds loose soils; high water intake	Mature height of 150 feet	Shallow, fibrous roots	Wet-moist soil; sun	10' apart
Douglas-Fir <i>Pseudotsuga menziesii</i>	seedlings	Forage, nesting, and hiding and thermal cover; long-lived; hydro. benefits	Mature height of 250 feet	Shallow roots	Moist-dry soil; sun	10' apart
Red Alder <i>Alnus rubra</i>	Seedlings; cuttings, suckers	Forage, nesting, and hiding cover; Nitrogen fixer, hydro. Benefits, LWD and OM input	Mature height of 80-120 feet	Shallow, strong, lateral roots	Moist-dry soil; sun-shade	10' apart
Western Hemlock <i>Tsuga heterophylla</i>	Seedlings, foliage	Forage, nesting, and hiding and thermal cover; long-lived, hydro. Benefits LWD inputs denning habitat	Mature height of 200-250 feet	Shallow roots	Moist soil; shade	10' apart
Western Red Cedar <i>Thuja plicata</i>	Seedlings	Same as above	Mature height of 200-250 feet	Shallow roots	Moist-wet soil: shade	10' apart

Shrub Species	Method of Propagation	Habitat Value	Form and Size	Rooting Character	Soils Preference	Planting Distance
Black Twinberry <i>Lonicera involucrata</i>	Cuttings	Forage and hiding cover	Spreading shrub to 10 feet	Shallow, spreading roots	Wet-moist soil; shade	4'-6' apart
Cascara <i>Rhamnus purshiana</i>	Cuttings	Forage, hiding, and nesting cover, hydro. Benefits; LWD and OM input to streams and forest floor	Large shrub or tree to 30 feet	Shallow roots	Moist-dry soil; sun- shade	4'-6' apart
Douglas Spiraea <i>Spiraea douglasii</i>	Divisions; suckers; root cuttings; cuttings	Forage, nesting, and hiding cover; OM input	Dense shrub to 7 feet	Extensive, fibrous roots	Wet-well drained soil; sun-shade	4'-6' apart
Hazelnut <i>Corylus cornuta</i>	Seeds; suckers	Forage, nesting, and hiding cover	Shrub to 15 feet	Extensive, branching roots	Moist-dry soil; sun-shade	4'-6' apart



Riparian (Stream Side) Vegetation

Indian Plum <i>Oemleria cerasiformis</i>	Seeds; cuttings	Same as above	Sparse shrub to 15 feet	Shallow, spreading roots	Moist-dry soil; sun-shade	4'-6' apart
Mock Orange	Cuttings; layers	Same as above	Shrub to 15 feet	Fibrous roots	Moist-dry soil	4'-6' apart
Oceanspray <i>Holodiscus discolor</i>	Seeds	Forage, nesting, and hiding cover	Shrub to 10 feet	Shallow, spreading roots	Moist-dry soil; sun-part shade	4'-6' apart
Pacific Ninebark <i>Physocarpus capitatus</i>	Cuttings	Same as above	Sparse shrub to 20 feet	Shallow, lateral roots	Moist-well drained soil; sun-shade	4'-6' apart
Red Elderberry <i>Sambucus racemosa</i>	Cuttings from 2 nd year wood, root cuttings, seed	Same as above	shrub to 20 feet	Fibrous; strong adventitious roots	Moist-dry soil; sun-shade	4'-6' apart
Red-osier Dogwood <i>Cornus stolonifera</i>	Cuttings; layers	Forage, nesting, and hiding cover; LWD and OM input streams and forest floor	Shrub to 20 feet	Shallow, strong lateral fibrous roots; spreads by rootstocks	Wet-well drained soil; sun-shade	6'-8' apart
Salmonberry <i>Rubus spectabilis</i>	Divisions, cuttings, root cuttings	Forage, nesting, and hiding cover	Ground cover and shrubs to 10 feet	Shallow, fibrous trailing branches, set roots	Wet-dry soil; sun-shade	4'-6' apart
Serviceberry <i>Amelanchier alnifolia</i>	Suckers; seedling	Same as above	Shrub or small tree to 30 feet	Deep, spreading roots	Well drained dry soil; sun	4'-6' apart
Sitka Alder <i>Alnus sinuata</i>	Seedlings; cuttings; suckera	Forage, nesting, and hiding cover; LWD & OM input; Nitrogen fixer	Shrub to 25 feet	Shallow, extensive roots	Moist soil	6'-8' apart
Snowberry <i>Symphoricarpose albus</i> , <i>Symphoricarpos mollis</i>	Suckers, cuttings	Forage, nesting, and hiding cover	Densse shrub; albus to 3 feet; mollis to 1 foot	Extensive branching, fibrous roots, spreads by rootstocks	Moist-well drained soil; sun-shade	4'-6' apart
Tall Oregon Grape <i>Berberis aquifolium</i>	Cuttings, layers	Same as above	Shrub to 7 feet	Deep, rhizomatous roots, spreads by rootstocks	Well-drained soil; sun-shade	4'-6' apart
Vine Maple <i>Acer circinatum</i>	2 nd year wood placed horizontally; seedlings	Forage, nesting, and hiding cover, LWD and OM input hydro benefits	Shrub or small tree to 35 feet	Spreading, moderately deep roots	Moist-dry soils, sun-partial shade	4'-6' apart
Wild Rose <i>Rosa nutkana</i>	Stem cuttings; root cuttings; layers	Forage, nesting, and hiding cover	Sparse to dense shrubs to 4 feet	Poor for erosion control	Dry-moist soils; sun-partial shade	4'-6' apart
Willow <i>Salix spp.</i>	cuttings	Forage, nesting, and hiding cover; LWD and OM input; hydro benefits; high water intake; binds loose soils	Shrubs or trees to 40 feet	Shallow, extensive roots	Moist-wet soils; sun	4'-6' apart